

**REMARKS**

This Amendment responds to the Office Action dated January 11, 2005.

The Examiner rejected claims 1-4 and claims 12-19 under 35 U.S.C. § 112, second paragraph as being indefinite. Independent claim 1 and independent claim 12, as originally presented, were ambiguous because in all circumstances at least one of a claimed first intensity threshold and a second intensity threshold would not be selected when using the claimed method. Yet the claimed method also indicated that “a third intensity threshold” would be selected in the eventuality that “at least one of said first and said second intensity thresholds is not selected.” Thus, under the originally presented claims 1 and 12, the third intensity threshold was always to be selected, even if either of a first intensity threshold and a second intensity threshold were also to be selected. This was not intended. Accordingly, independent claims 1 and 12 have each been amended to recite the limitation of “selecting a third intensity threshold if . . . neither of said first and said second error thresholds are selected.” Each of claims 1 and 12, as amended, clearly define the precise circumstances under which the claimed first, second, and third intensity thresholds will be selected. Therefore, the Examiner’s rejection under 35 U.S.C. § 112, second paragraph is overcome.

The Examiner rejected claims 20 and 21 under 35 U.S.C. § 102(e) as being anticipated by Zlotnick, U.S. Patent No. 6,351,566. Zlotnick discloses an encoder that classifies pixels as either black or white. First, Zlotnick discloses that two threshold parameters T and D may be calculated according to a merit function described at col. 8 lines 29-34. Any pixels darker than  $T+D/2$  are classified as black and any pixels lighter than  $T-D/2$  are classified as white. This step

does not disclose selecting one threshold based upon another threshold being exceeded; instead it merely discloses *selecting a luminance value* based upon whether given thresholds  $T+D/2$  or  $T-D/2$  have been met. Accordingly, this portion of the disclosure does not anticipate any of applicant's claims.

Zlotnick further discloses that pixels not classified as black or white in the preceding step are compared to the grey level average of neighboring pixels. Those that exceed the average by the value of  $D$  or greater are classified black and those that fall short of the average by the value of  $D$  or greater are classified as white. In this step, at best, Zlotnick discloses a variable threshold that depends on an average grey level value (or luminance) of neighboring pixels. That average grey level value cannot fairly be characterized as an "error" of a neighboring pixel. In fact, the very nature of averaging grey level values of pixels means that the average obtained is not associated with any of the individual pixels used to calculate the average, but rather the collection of pixels averaged. Nonetheless, each of independent claims 1, 5, 12, and 20 have been amended to recite an "accumulated error" for processed pixels, which would not read on the grey-level average disclosed by Zlotnick. Parenthetically, the applicant notes that pixels not categorized by the two aforementioned steps of Zlotnick are simply binarized about the threshold  $T$ , hence like the first step, does not disclose the selection of one threshold based upon whether another threshold has been exceeded.

For the foregoing reasons, independent claim 20 as amended, along with its dependent claim 21, patentably distinguish over Zlotnick. The Examiner's rejection of these claims should therefore be withdrawn.

The Examiner rejected claims 1-11 and 22 under 35 U.S.C. § 103(a) as being obvious in view of the combination of Zlotnick and Ostromoukhov, U.S. Patent No. 6,356,566. The Examiner rejected claims 12-15, 17, and 18 under 35 U.S.C. § 103(a) as being obvious in view of the combination of Zlotnick, Ostromoukhov, and Shu, U.S. Patent No. 5,757,976. The Examiner rejected claim 16 under 35 U.S.C. § 103(a) as being an obvious design choice in view of the combination of Zlotnick, Ostromoukhov, and Shu. The Examiner rejected claim 19 under 35 U.S.C. § 103(a) as being obvious in view of the combination of Zlotnick, Ostromoukhov, Shu, and Harrington, U.S. Patent No. 6,072,591.

Independent claims 1, 5, 12, and 20 have each been amended to include the step of selecting thresholds based upon whether an accumulated error of specified pixels exceeds one of a plurality of error thresholds. The cited combinations do not disclose such methods. Further, the applicant notes that any combination involving Zlotnick would teach away from the claimed inventions because, as discussed previously, Zlotnick discloses the selection of thresholds based upon methods mutually exclusive to those claimed, i.e. Zlotnick discloses the selecting thresholds based upon a merit function and grey level averages, and not on accumulated pixel errors. Therefore, independent claims 1, 5, 12, and 20, along with their dependent claims 2-11, 12-19, and 22 are each patentably distinguished over the cited combinations. The Examiner's rejection of these claims should therefore be withdrawn.

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In view of the foregoing amendments and remarks, the applicant respectfully requests  
reconsideration and allowance of claims 1-22.

Respectfully submitted,

  
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